Eightfold Path[1] to Adaptive Management and BDCP Permit Application

1. Goals and Objectives process (under Bruce DiGennaro's leadership) develops list of stressors (hypotheses re: what's causing fish decline in the Delta) and bounds them to describe what would need to change in order to solve this problem or produce detectable change in the fish populations. Secondarily, BDCP leadership should choose from among the aforementioned stressors which stressors the Plan will contribute to solving and to what extent (BDCP objectives). It is not necessary to perfect or finalize BDCP objectives before moving on to subsequent planning steps below, but clear guidance on objectives will increase efficiency.

2. Revise and re-initiate the DRERIP evaluation process to determine the magnitude and certainty of positive and negative stressor reduction *outcomes* associated with conservation measures and covered activities. Evaluate risk, reversibility, and opportunity to learn from each action as well as an estimated timeline from project initiation to development of outcomes. Use quantitative models (e.g. from existing EA) as appropriate to quantify outcomes and inform DRERIP process.

3. Complete the DRERIP evaluation process by inputting information from step two into DRERIP vetting process[2]. This sorts conservation measures into four bins:

    a. Full scale implementation (Tier 1 actions)

    b. Pilot project (Tier 2 actions)

    c. Targeted research (Tier 3 - low certainty/high to medium magnitude)

    d. Discard. Note that discarded measures can be substantially revised and reevaluated.

4. Compare magnitude and certainty of Tier 1 measure *outcomes* to total stressors identified in step 1 and preliminary BDCP objectives identified in the second part of step 1, identify gaps, and then refine or develop new conservation measures to fill those gaps.

[1] Siddhartha originally proposed the Noble Eightfold Path as a way to end suffering.

[2] BDCP Management can alter the DRERIP vetting process to allow for more or less certainty in outcomes (e.g. to increase or decrease the range of projects to implement at full scale).

5. Run new or modified conservation measures through the DRERIP vetting process and revise Tier 1 action plan as appropriate.

6. Assemble all Tier 1 projects into an "Implementation Action Plan" and then sum-up the projected outcomes into a credible estimate of the overall impact in short-term, mid-term, and long-term (this may be a numerical estimate, but will more likely have a qualitative aspect to it). This will be BDCP's estimated contribution to ecosystem recovery.

7. Assemble all Tier 2 and Tier 3 measures and develop an "Uncertainty Reduction Plan" by which lessons learned from these can contribute to full-scale implementation or abandonment of Tier 2 conservation measures. Identify how information gained from these projects will be useful in developing/refining life cycle analysis or other models to help reduce uncertainty over time.

8. Revise objectives and develop performance metrics based on information developed from previous 7 steps. The DRERIP analysis will enable BDCP planners to better understand what is achievable under various time frames and this should and will inform plan objectives. Specific information regarding project outcomes from each measures can serve as the basis for performance or effectiveness metrics.

9. Based on collective learning from previous eightfold path – design scientific decision-making process ("Adaptive Management Plan") for moving forward.

10. Compile Tier 1 Implementation Action Plan, "Uncertainty Reduction Plan," and "Adaptive Management Plan" into the BDCP permit application.